

Applicant: Frederick L. Way II et al.  
Serial Number: 09/686,235  
Filed: October 11, 2000  
For: GRAVITY DRIVEN STEERABLE VEHICLE

Group Art Unit: 3618  
Confirmation No.: 6103  
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### **Amendments to the Drawings**

Attached as Appendix A are replacement drawings to be entered into the application, replacing Figs. 1-15 originally filed. Applicants have:

- (1) removed encircled numbers;
- (2) removed legends with part numbers;
- (3) removed measurements; and
- (4) added reference numbers.

Applicants will provide annotated drawings, should Examiner request them. No new matter has been added.

### **REMARKS/ARGUMENTS**

This Amendment is filed in response to the Office Action dated November 24, 2003. All rejections are respectfully traversed.

On pages 2-3, paragraph 2 of the Office Action, Examiner states that, besides claims 27-28, claims 20-26 read on the elected species. Therefore, claims 20-28 are now pending in the application. Claims 1-19 have been withdrawn from consideration. Claims 20 and 24-27 are herein amended to correct typographical errors, and not to overcome prior art rejections. A petition for a three-month extension of time together with the appropriate fee is also enclosed herewith.

On page 3, paragraph 4a of the Office Action, Examiner states that formal drawings will be required with the application is allowed. Applicants will provide formal drawings when a notice of allowance is received.

On page 3, paragraph 4b of the Office Action, the drawings are objected to as failing to comply with 37 C.F.R. 1.84(p)(5) because they include numerous reference numbers not identified in the specification. Applicants have herein amended the specification to correct reference number mismatches. No new matter has been added.

On page 3, paragraph 4c of the Office Action, the drawings are objected to for having numerous informalities. Applicants herein provide replacement drawings that correct informalities cited by Examiner and other informalities.

On page 4, paragraph 4d of the Office Action, the drawings are objected under 37 C.F.R. 1.83(a). Examiner states that the features of claims 24-27 reciting limitations of means for absorbing shock exerted on the ski must be shown or the feature(s) canceled from the claim(s). Applicants herein replacement drawings, specifically Figs. 11-15, which specifically show means for absorbing

shock exerted on the ski. Applicants herein amend the specification to refer specifically to the reference numbers on the drawings that show means for absorbing shock. No new matter has been entered.

On page 4, paragraph 5 of the Office Action, Examiner states that the specification contains terms that do not appear to relate to the subject of the inventive concept. According to a conversation with Examiner on May 14, 2004, Applicants herein submit amendments to the specification to clarify the subject matter of the invention, specifically clarifying information in the background and abstract, and making corrections in other parts of the application. Applicants respectfully point out that the present patent application is a continuation-in-part, and thus contains matter from the parent case. No new matter has been entered.

On page 5, paragraph 6 of the Office Action, claims 24-27 are objected to for informalities. Applicants have herein amended claims 24-27 to correct stated informalities.

On pages 5-6, paragraphs 7-8 of the Office action, claim 20 is rejected under 35 U.S.C. § 102(b) as being anticipated by Volz, United States Patent # 1,409,501 (Volz). Examiner states that Volz discloses a gravity driven steerable vehicle for use on snow covered terrain comprising: (re: claim 20)

- a chassis (1) having a front, rear, and underside and a topside;
- a rider riding surface on the top side configured to cause a rider on the surface to be oriented in a prone face down, face forward position (refer lines 61-66);
- means (2) for attaching a rear axle assembly (3) substantially at the chassis rear (refer lines (35-37);
- means (5) for mounting a front axle assembly (6) at the chassis front (refer lines 37-40);
- means (5) for steering the vehicle by the rider (refer lines 61-66);
- two rear hub and spindle assemblies (11, 12, and 14 (refer lines 51-57); wherein the ends of the axles 3, 6 serve as spindles (refer lines 42-46, refer lines 47-48); integral with the rear axle assembly, one rear hub and spindle assembly at each end of the rear axle assembly;
- and two front hub and spindle assemblies integral with the front axle assembly, one front hub and spindle assembly at each end of the front axle assembly; and
- means for attaching one ski (10) assembleable to each of the two rear hub and spindle assemblies and to each of the two front hub and spindle assemblies (refer lines 46-61).

The coaster of Volz includes a crossbar, two axles, a sled bed, and wheels or runners. The wheels or runners are attached to the coaster by means of cotter pins. The coaster is steered by turning the crossbar. Nowhere does Volz disclose front or rear hub and spindle assembly integral with a front or rear axle. Nowhere does Volz disclose a ski. The invention of Volz is limited to wheels and runners connected to axles by cotter pins. Nowhere does Volz disclose a chassis that is

configured to cause a rider to be oriented in a prone, face down, face forward position.

Applicants claim a chassis that is configured to cause a rider to be oriented in a prone, face down, face forward position. Nowhere does Volz disclose a configuration that causes a rider to be in any particular orientation. Applicants claim rear and front hub and spindle assemblies. Nowhere does Volz disclose either rear or front hub and spindle assemblies. The cotter pin of Volz cannot be considered to rise to the sophistication of Applicants' hub and spindle assembly. Applicants claim a means for attaching a ski to each hub and spindle assembly. Volz discloses attaching wheels and runners, but nowhere does Volz disclose attaching a ski.

Since Volz does not set forth each and every element of Applicants' claim 20, either expressly or inherently, Applicants' claim 20 (as well as claims 21-28 that depend therefrom and that further define the invention) is not anticipated by Volz and a rejection under 35 U.S.C. §102(b) is inappropriate. Therefore, Applicants respectfully request the withdrawal of rejections under 35 U.S.C. §102(b) with regards to claims 20-28 for the reasons set forth above. Furthermore, a 35 U.S.C. § 103 rejection of these claims would be inappropriate as well. Applicants' claimed invention is not an obvious extension of the use of Volz to meet Applicants' patentable limitations. See the below remarks with respect to the 35 U.S.C. § 103 rejections for even further details.

On page 6, paragraphs 9-10 of the Office Action, claim 21 is rejected under 35 U.S.C. §103(a) as being unpatentable over Volz in view of Redling, United States Patent # 2,353,501 (Redling). Examiner states that Volz discloses all of the features of claim 20 from which claim 21 depends, but lacks explicit disclosure of a braking feature. Examiner states that Redling teaches a snow sled having a manually actuated brake (combination 42, 43, 44). Examiner states that it would have been obvious to one of ordinary skill in the art to have modified the sled of Volz to incorporate a hand brake in accordance with the teachings of Redling as a safety feature to keep the sled stationary when the rider was entering or exiting from the sled (col. 1, lines 41-45).

Redling discloses a coaster truck with a brake and steering. Nowhere do either Volz or Redling disclose or suggest a chassis topside configured to cause a rider on said rider riding surface to be oriented in a prone, face down, face forward position. Nor do either Volz or Redling disclose any hub and spindle assemblies, nor any skis.

Applicants respectfully point out that claim 21 depends from claim 20. In order for a rejection under 35 U.S.C. §103 to be sustained, the Examiner must establish a prima facie case of obviousness. As pointed out in Section 2142 of the MPEP, one of the three criteria to establish a prima facie case of obviousness is that the prior art reference(s) must teach or suggest all the claim limitations. As discussed above by Applicants in the Remarks/Arguments of the 35 U.S.C §102(b) rejections, Volz does not anticipate all the claimed limitations of claim 20. Further, Redling does not suggest the claimed limitations of claim 20 not anticipated by Volz. Therefore, Volz combined with the Redling is not sufficient to sustain a rejection under 35 U.S.C. §103 for claim 21.

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On pages 6-7, paragraphs 11 and 13 of the Office Action, claims 22 and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Volz in view of Dandurand, United States Patent # 2,770,465 (Dandurand). Examiner states that Volz discloses all of the features of claim 20 from which claim 22 depends, and that Volz and Redling disclose all the features of claim 21 from which claim 23 depends, but that both Volz and Redling lack explicit disclosure of a harness for the rider. Examiner states that Dandurand teaches a harness for securing a rider onto the riding surface of a sled. Examiner states that it would have been obvious to one of ordinary skill in the art to have modified the sled of Volz, or the combination of Volz and Redling, to incorporate a harness in accordance with the teachings of Dandurand as a safety measure and to provide a more comfortable ride during maneuvers.

Dandurand discloses a rescue sled having hold down straps 24 retain covering flaps 20, 22 in position when the sled is in use (col. 2, lines 2-3). Nowhere do any of Volz, Redling, or Dandurand disclose or suggest a chassis topside configured to cause a rider on said rider riding surface to be oriented in a prone, face down, face forward position. Nor do either Volz or Redling disclose any hub and spindle assemblies. Nowhere do any of Volz, Redling, or Dandurand disclose a means for harnessing the rider when the rider is positioned, as claimed by Applicants, in a prone, face down, face forward position.

Applicants respectfully point out that claim 22 depends from claim 20 and claim 23 depends from claim 21 which depends from claim 20. In order for a rejection under 35 U.S.C. §103 to be sustained, the Examiner must establish a prima facie case of obviousness. As pointed out in Section 2142 of the MPEP, one of the three criteria to establish a prima facie case of obviousness is that the prior art reference(s) must teach or suggest all the claim limitations. As discussed above by Applicants in the Remarks/Arguments of the 35 U.S.C §102(b) rejections, Volz does not anticipate all the claimed limitations of claim 20. Further, neither Redling nor Dandurand suggest the claimed limitations of claim 20 not anticipated by Volz. Therefore, neither Volz, nor Volz combined with Dandurand, nor Volz combined with Redling and Dandurand, is sufficient to sustain a rejection under 35 U.S.C. §103 for either of claims 21 or 23.

On page 7, paragraph 12 of the Office Action, claim 28 is rejected under 35 U.S.C. §103(a) as being unpatentable over Volz in view of Gibbons, United States Patent # 6,116,622 (Gibbons). Examiner states that Volz discloses all of the features of claim 20 from which claim 28 depends, but lacks explicit disclosure of a combination roll bar and tote bail. Examiner states that Gibbons teaches a roll bar and bail (32) for a snow sled. Examiner states that it would have been obvious to one of ordinary skill in the art to have modified the sled of Volz to incorporate a roll bar and bail in accordance with the teachings of Gibbons in order to provide safety in case of the sled's overturning during riding, and whereby the sled could be at least partially lifted for transport when not being used.

Gibbons discloses a sled configured for a seated, upright passenger, having a padded roll bar. Nowhere do either Volz or Gibbons disclose or suggest a chassis topside configured to cause a rider on said rider riding surface to be oriented in a prone, face down, face forward position. Nor do either Volz or Gibbons disclose any hub and spindle assemblies.

Applicants respectfully point out that claim 28 depends from claim 20. In order for a rejection under 35 U.S.C. § 103 to be sustained, the Examiner must establish a prima facie case of obviousness. As pointed out in Section 2142 of the MPEP, one of the three criteria to establish a prima facie case of obviousness is that the prior art reference(s) must teach or suggest all the claim limitations. As discussed above by Applicants in the Remarks/Arguments of the 35 U.S.C § 102(b) rejections, Volz does not anticipate all the claimed limitations of claim 20. Further, Gibbons does not suggest the claimed limitations of claim 20 not anticipated by Volz. Therefore, Volz combined with the Gibbons is not sufficient to sustain a rejection under 35 U.S.C. § 103 for claim 21.

On page 8, paragraph 14 of the Office Action has been deleted by Examiner on 11/14/2003.

On pages 8-10, paragraphs 15-17 of the Office Action, claims 24-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Volz in view of Berthold et al., United States Patent # 4,291,892 (Berthold). Examiner states that Volz discloses all of the features of claim 20 from which claim 24 depends, that Volz and Dandurand disclose all the features of claim 22 from which claim 25 depends, that Volz and Redling disclose all the features of claim 23 from which claims 26 and 27 depend, but Volz, Dandurand, and Redling lack explicit disclosure of shock absorbing means between the front attached skis and the front axle assembly. Examiner states that Berthold teaches a gravity driven steerable snow vehicle having shock absorbing means between the front skis and the front axle assembly. Examiner states that it would have been obvious to one of ordinary skill in the art to have modified the sled of Volz, the combination of Volz and Dandurand, or the combination of Volz and Redling, to have shock absorbers on the front skis between the skis and the axles in accordance with the teachings of Berthold in order to cushion the ride over uneven terrain (col. 1, lines 22-27). Examiner further states that it would have been obvious to one of ordinary skill in the art to have further modified the sled having shock absorbing means attached between the skis and axle assemblies at the front of the sled to include, as well, shock absorbing means attached between the skis and axle assemblies at the rear of the sled, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

Berthold discloses an undercarriage that is of relatively low height, having a shock absorber 14 that cannot be mounted vertically or even near-vertically (col. 4, lines 34-35), and is located on each runner as shown in Berthold's FIGs. 1, 3, and 4. Nowhere do any of Volz, Redling, or Dandurand disclose or suggest a chassis topside configured to cause a rider on said rider riding surface to be oriented in a prone, face down, face forward position. Nor do either Volz or Redling disclose any hub and spindle assemblies. Nowhere do any of Volz, Redling, or Dandurand disclose

a means for harnessing the rider when the rider is positioned, as claimed by Applicants, in a prone, face down, face forward position. And finally, nowhere does Berthold disclose a means for absorbing shock *between front and/or rear attached skis and front and/or rear axle assemblies*. The shock absorbers of Berthold are located *on each runner*.

Applicants respectfully point out that claim 24 depends from claim 20, claim 25 depends from claim 22 that depends from claim 20, claim 26 depends from claim 23 depends from claim 21 which depends from claim 20, and claim 27 depends from claim 26. In order for a rejection under 35 U.S.C. § 103 to be sustained, the Examiner must establish a prima facie case of obviousness. As pointed out in Section 2142 of the MPEP, one of the three criteria to establish a prima facie case of obviousness is that the prior art reference(s) must teach or suggest all the claim limitations. As discussed above by Applicants in the Remarks/Arguments of the 35 U.S.C § 102(b) rejections, Volz does not anticipate all the claimed limitations of claim 20. Further, none of Redling, Gibbons, Dandurand, nor Berthold suggest the claimed limitations of claim 20 not anticipated by Volz. Therefore, neither Volz combined with Berthold, nor Volz combined with Redling and Berthold, nor Volz combined with Gibbons and Berthold, nor Volz combined with Dandurand and Berthold is sufficient to sustain a rejection under 35 U.S.C. § 103 for any of claims 24, 25, 26 or 27.

In view of the absence from any cited patent of Applicants' claimed elements as set forth above, Applicants respectfully urge that Volz, Redling, Gibbons, Dandurand, and Berthold, separately or in combination, are legally insufficient to render the presently claimed invention obvious under 35 U.S.C. § 103.

On pages 10-11, paragraphs 18-19 of the Office Action, claims 20-27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 and 9 of United States Patent # 6,276,700 in view of Volz. Examiner states that although the conflicting claims are not identical, they are not patentably distinct from each other because the differences, using skis instead of wheels as the support elements for the vehicle, represent obvious modifications taught by Volz wherein it would have been obvious to one of ordinary skill in the art to have substituted skis in place of the wheels at the front and rear of the vehicle as suggested by Volz at lines 11-20.

Volz suggests that his coaster, which includes a crossbar, two axles, a sled bed, and wheels or runners, may be used with either wheels or with runners, which, Volz discloses, are attached to the coaster by means of cotter pins. Nowhere does Volz disclose or suggest front or rear hub and spindle assemblies integral with a front or rear axles to which the wheels or runners of his coaster could be attached. Nowhere do either Volz or Way disclose or suggest a ski.

Applicants respectfully point out that claims 21-27 depend, ultimately, from claim 20. In order for a rejection under the judicially created doctrine of obvious-type double patenting to be sustained, the Examiner must establish a prima facie case of obviousness. As pointed out in Section

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2142 of the MPEP, one of the three criteria to establish a prima facie case of obviousness is that the prior art reference(s) must teach or suggest all the claim limitations. As discussed above, neither Volz nor Way suggests all the claimed limitations of claim 20. Therefore, Volz combined with Way is not sufficient to sustain a rejection under the judicially created doctrine of obviousness-type double patenting for any of claims 20-27.

All independent claims are believed to be in condition for allowance. All dependent claims are believed to depend upon allowable independent claims, and therefore in condition for allowance. The following information is presented in the event that a call may be deemed desirable by the Examiner:

Date: May 20, 2004

Respectfully submitted,

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